

CLAIMS

1. A container (1), in particular a bag, for packaging bulk material such as for example cement, characterised by

- at least one gas-permeable and moisture-repellent container wall (2) which essentially forms the container (1) and
- which has a carrier layer (3) and
- a plastic layer (4) having openings.

2. A container according to claim 1 characterised in that the plastic layer (4) is arranged on the carrier layer (3) on the outside thereof.

3. A container according to claim 1 or claim 2 characterised in that a further carrier layer is applied on the plastic layer (4) on the outside thereof.

4. A container according to claim 1, claim 2 or claim 3 characterised in that the carrier layer (3) is a fabric layer or a paper layer.

5. A container according to at least one of the preceding claims characterised in that the plastic layer (4) is an adhesive layer, in particular a hot melt adhesive layer.

6. A container according to at least one of the preceding claims characterised in that the plastic layer (4) comprises mutually spaced hot melt adhesive stripes.

7. A container according to at least one of the preceding claims characterised in that the plastic layer (4) is porous.

8. A device for manufacturing containers (1), in particular bags, for packaging bulk material such as cement, comprising:

- a cutting tool (15) for cutting a carrier web (7) into portions (16), and
- a shaping tool for shaping a container (1) from a respective one of the portions (16), characterised by
- at least one coating tool (9) for applying to the carrier web (7) a plastic layer (13) having openings, and
- at least one transporting tool (8) for transporting the carrier web (7) past the at least one coating tool (9).

9. A device according to claim 8

characterised in that the at least one coating tool has a fluid applicator (9) with a slot nozzle (17) arranged at the carrier web side for applying liquid plastic, the fluid applicator preferably being arranged upstream of the cutting tool (15) in the transport direction.

10. A device according to claim 9

characterised in that the slot nozzle (17) is subdivided into slot nozzle portions (18a, 18b) and the slot nozzle portions (18a, 18b) can be supplied with liquid plastic by individual pumps (10) or groups of pumps (10) associated with slot nozzle portions (18a, 18b), which pumps are controllable by means of a control device (22).

11. A device according to claim 8

characterised in that the at least one coating tool (9) has at least one dispersing tool for dispersing plastic powder on to the carrier web (7) and in the transport direction of the carrier web (7) downstream of the at least one dispersing tool at least one heating element (14) for melting the plastic powder and for producing a porous plastic layer.

12. A device according to at least one of claims 8 to 11

characterised in that arranged in the transport direction downstream of the at least one coating tool (4) are laminating rollers for applying a further carrier web to the plastic side of the coated carrier web (7).

13. A method of manufacturing containers, in particular bags, for packaging bulk material such as cement, in which:

- a carrier web (7) is cut into portions, and
- each portion (16) is formed to a respective container wall (2) substantially forming a container (1),

characterised in that

- the carrier web (7) is coated with a plastic layer (13) having openings to form an air-permeable and moisture-repellent container wall (2).

14. A method according to claim 13

characterised in that a further carrier layer is applied to the plastic layer (13).

15. A method of filling containers (1), in particular bags, with bulk material such as cement, in which:

- the bulk material, in particular cement, is introduced into the open container (1) by means of a filling connection and
- the container (1) is sealed off with respect to the filling connection, characterised in that
- air enclosed in the container (1) escapes during the filling operation through at least one gas-permeable and moisture-repellent container wall (2) of the container (1).